

ABSTRACT OF THE DISCLOSURE

A magnetic core transceiver antenna for EAS marker detection is provided. The core includes a stack of amorphous alloy ribbons insulated from each other and laminated together. A coil winding of wire, also insulated from the ribbons, and connected to an

- 5 electronic controller provides the transmitter and receiver modes. The transceiver antenna is optimized for the dual mode operation, and is smaller and uses less power than conventional air-core EAS antennas with equivalent performance. Complex core geometries, such as a sandwiched stack of different sized ribbons, can be implemented to vary the effective permeability of the core to customize antenna performance. Multiple transceiver antennas
- 10 can be combined to increase the size of the generated EAS interrogation zone.